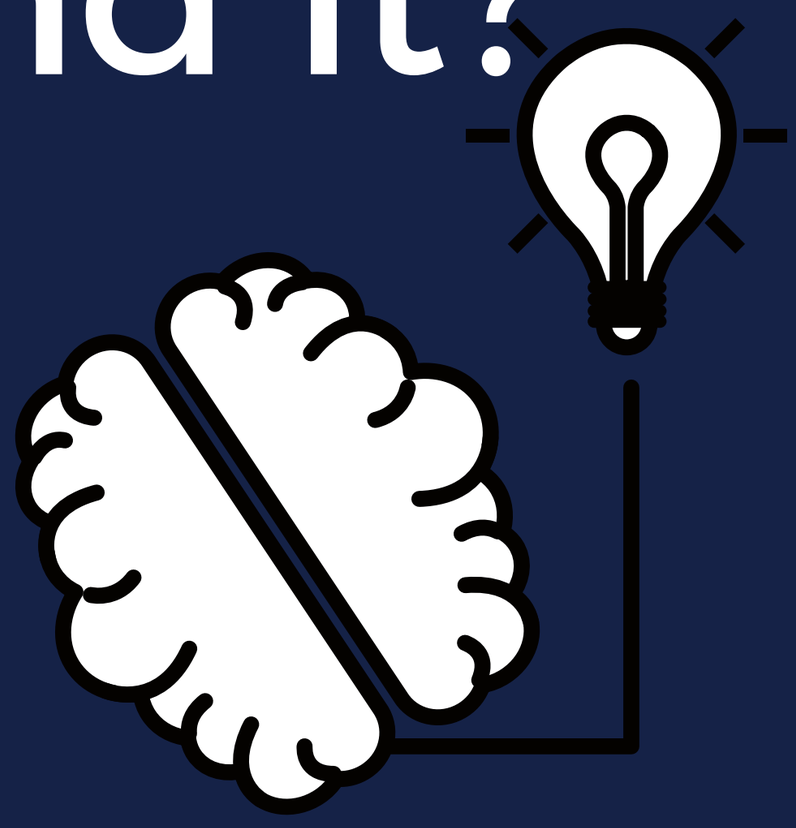
EU rules for AI

... a process in progress

But what is the idea behind it?



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OVERVIEW

Risk-based approach

Unacceptable Risks

strictly prohibited

High Risks

permitted, but strict obligations must be met

Limited Risks

permitted, but transparency obligations must be met

Minimal Risks

no obligations

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AI systems are developed using methods...

Machine learning

supervised, unsupervised and reinforcement learning and deep learning

Logic and knowledge-based approaches

knowledge representation, inductive programming, knowledge bases, inference and deductive engines, (symbolic) reasoning and expert systems

Statistical approaches

Bayesian estimation, search and optimization methods

to generate outputs ...

content	generate a background filter
predications	your reaction to an article
recommendations	the fastest route to your destination
decisions	lower the temperature at night

for a set of goals defined by humans

The AI Act regulates three types of AI systems:

Prohibited AI systems Art. 5

High-risk AI systems Art. 3(1) and Annex III

AI systems requiring transparency Art. 52

all other types of AI systems are not regulated!

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Prohibited AI systems

AI systems used by any actor which...

- deploy subliminal techniques beyond a person's consciousness
- exploit vulnerabilities of age, physical or mental disability

AI systems used by public authorities for...

- Social scoring
- Real-time remote biometric identification by law enforcement

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Art. 5

High-Risk AI systems

are products or part of products subject to conformity assessments

such as toys, medical devices, personal protective equipment and transportation

Art. 6 (1) and Annex II

or...

have high-risk use cases*

biometric identification
critical infrastructure
education
employment
access to private and public services
law enforcement
migration, asylum and border control
administration of justice and democratic processes

Art. 6 (2) and Annex III

*specific applications may be amended by EC (Art. 7(1))

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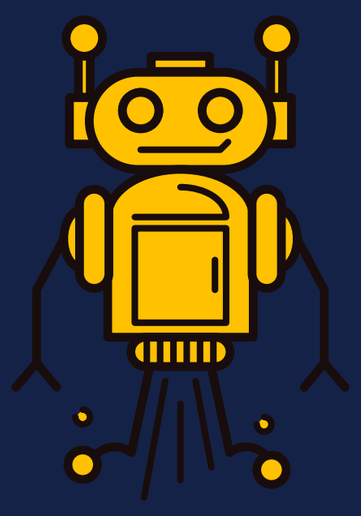
AI systems requiring transparency with...

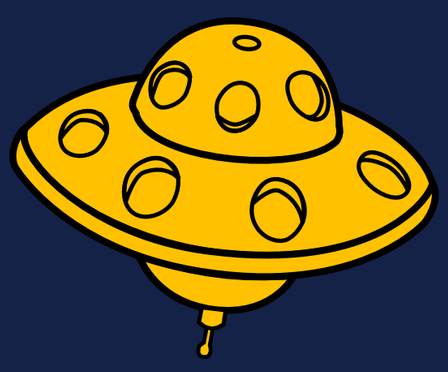
Obligations for providers



Ensure that humans can recognise whether they are interacting with an AI system

Obligations for users

Inform the people affected by emotion recognition and biometric categorisation systems



Mark deep fakes and generated or manipulated images and audio or video content as AI-generated or AI-manipulated

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Art. 52

AI Act workflow

Do I have an AI system?

Which risk level does my system have?

Prohibited → **Not allowed on market**

High-risk → Does it fulfil the requirements for hgih-risk AI systems?

Transparency required

Other → **No obligations**

What is my role?

I am affected by a system → **No obligations**

I am a provider

I am a user

I am an importer

I am a distributor

High risk

comply with role-specific obligations

Systems requiring transparency

ensure humans know they are interacting with AI systems

- inform of use of system
- mark as AI-generated content

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Workflow to market entry for high-risk AI systems

My AI system is high-risk.

What is my role?

- Provider
- Importer
- Distributor
- Manufacturer*

*if product safety legislation applies

Does it fulfil the requirements for hgih-risk AI systems?

Have I fulfilled all of my obligations regarding design, testing, development and documentation?

Have I used standards or common specifications?

Conformity assessment required

Have I fulfilled my obligations regarding verification and provision of information?

Is my system a biometric identification system or subject to product safety legislation?

Self-assessment possible

Registration of high-risk AI system

Market entry

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Requirements for high-risk AI systems

Risk management system	Art. 9
Data set quality and data governance	Art. 10
Technical documentation	Art. 11 + Annex III
Record-keeping (logs)	Art. 12
Intelligible design and instructions for use	Art. 13
Human oversight	Art. 14
Accuracy, robustness and cybersecurity	Art. 15

... standards coming soon!

Art. 40-42

Obligations of providers* of high-risk AI systems

- ensure compliance of AI system with requirements for high-risk AI systems
- implement a quality management system (Art. 17)
- provide technical documentation (Art. 11 and 18 and Annex 1)**
- keep logs of the AI system (Art. 20)
- ensure conformity-assessment procedure before placing AI system on the market (Art. 19, 48 and 49)
- comply with registration obligations (Art. 51)
- take corrective actions if the system is non-compliant (Art. 21)
- inform authorities of any non-compliance and corrective actions (Art. 22)**
- affix CE marking (Art. 49)
- demonstrate conformity upon request (Art. 23)**

*Manufacturers of products subject to product safety legislation have the same responsibilities as providers (Art. 24)
**Providers outside the EU need to give their authorised representative a mandate to carry out these obligations on their behalf (Art. 25)

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Obligations of importers of high-risk AI systems

- ensure validity and availability of:
  - conformity assessment
  - technical documentation
  - CE marking
  - documentation and instructions for use
- do not place system on the market until it conforms with requirements and inform authorities of risks to health, safety and fundamental rights*
- include name and contact details on the system, its packaging or documentation
- ensure storage or transport conditions do not affect compliance with requirements
- comply with requests for information and corrective action by authorities

*as defined in Art. 65(1)

Obligations of distributors of high-risk AI systems

- ensure validity and availability of:
  - CE marking
  - documentation and instructions for use
  - proof of compliance of provider and importer with their obligations
- do not place system on the market until it conforms with requirements and inform authorities of risks to health, safety and fundamental rights*
- ensure storage or transport conditions do not affect compliance with requirements
- comply with requests for information by authorities
- take corrective action, withdraw or recall the system if the AI system does not conform (or ensure importer or provider takes necessary actions)
- comply with requests for information and documentation by authorities and cooperate on actions taken

*as defined in Art. 65(1)

Obligations of users of high-risk AI systems

- use AI system according to instructions
- inform provider or distributor of risks to health, safety or fundamental rights* and suspend use until corrective action is taken
- inform provider or distributor of any serious incidents or malfunctions** and interrupt use
- keep logs of high-risk AI system (if accesible)
- data protection impact assessment based on information by provider (if applicable)
- (special obligations for AI applications in credit or finance contexts)

*as defined in Art. 65(1)
**as defined inArt. 62

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Art. 29

Quality management for high-risk AI systems

- strategy for regulatory compliance (conformity assessments, modification management etc)
- techniques, procedures and systematic actions for
  - design, design control and design verification
  - development, quality control and quality assurance
- examination, test and validation procedures throughout the AI system's lifecycle (including frequency)
- technical specifications/standards (Art. 43)
- data management system
- risk management system (Art. 9)
- post-market monitoring system (Art. 61)
- incident reporting (Art. 62)
- communication procedures with regulatory authorities
- system for record-keeping
- resource management
- accountability framework for management and other staff

Conformity assessment procedures for high-risk AI systems

self-assessment

AI systems listed as high-risk and biometric identification systems applying standards/common specifications

- does my quality management system comply with requirements in Art. 17?
- is my technical documentation sufficient? does it cover all requirements set out in Title III, Chapter 2?
- does my technical documentation reflect the design and development of my AI system and my post-market monitoring system (Art. 61)?

Biometric identification systems (no standards or common specifications used)

- does my AI system fulfill all requirements for high-risk AI systems (Chapter 2)?

assessment by notified body

AI systems subject to product safety laws

- does my AI system satisfy all requirements of the applicable product safety law?
- does my AI system fulfill all requirements for high-risk AI systems (Chapter 2)?

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Art. 43 (1) and (2), Annex VII

Declaration of conformity: checklist for high-risk AI systems

Information regarding the AI system

- AI system name and type
- reference to harmonised standards or common specification used for AI system

Information regarding the provider

- name and address of provider
- name and ID of notified body, description of conformity assessment procedure and certificate number
- place and date of the issue of the declaration, name and function of signee and on whose behalf the declaration was signed

Statements of conformity

- confirming provider's responsibility regarding the declaration of conformity
- confirming that the AI system conforms to the AI Act and any other legislation requiring conformity assessments (if applicable)

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Annex V

may be amended by delegated Acts (Art. 48(5))

Who are you going to call?

Market surveillance authority

... if there is an issue with your high-risk AI system

National supervisor for conformity assessment bodies

... if you think there is a problematic AI system in use

... if you have a question about the legal situation of your AI system

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Open Questions

- Definition of AI
- Definition of biometric, and emotion recognition
- Prohibited applications: how useful are these prohibitions?
- Do the requirements for providers make sense? Are they practicable?

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About this brochure

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Women in AI Austria is part of the global Women in AI community. We are a nonprofit do-tank working towards gender-inclusive AI that benefits global society. Our mission is to increase female representation and participation in AI.

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